Appendix 9: GRADE assessment outcome

The most common domains for marking down GRADE confidence were risk of bias (-1), inconsistency (-1), and imprecision (-2), however groups were commonly rated up in confidence (+1) when events followed a trajectory pattern. We can be moderately confident that the true clinical course of pain and disability in people with acute and subacute low back pain is likely to be close to the estimate, however there is a possibility that it may be substantially different. We have very low confidence that the clinical course of pain and disability in people with persistent low back pain is close to the estimate.

Table. GRADE summary of findings

Number of studies	Certainty assessment							Rating up	Sample size	Certainty
	Study design	Risk of bias		Inconsistency	Indirectness	Imprecision	Publication bias			
Outcome: Pain (acute cohorts)										
31 studies	+4	-1		-1	0	0	0	+1		3
Bakker et al., 2007[1]	Observational longitudinal	High	Serious risk of bias	Some inconsistency present	No serious concern	No serious concern	Undetected	Pattern identified	97	Moderate certainty
Besen et al., 2015[2]; Carstens et al., 2014[3]; Shaw et al., 2013[4]; Shaw et al., 2011[5]		High							496	
Bousema et al., 2007[6]		Moderate							124	
Breen et al., 2011[7]		High							97	
Coste et al., 1994[8]		Moderate							103	
Coste et al., 2004[9]		Moderate							113	
Elfering et al., 2014[10]; Melloh et al., 2011[11]; Melloh et al., 2012[12]; Melloh et al., 2013[13]; Melloh et al., 2013[14]; Melloh et al., 2013[15]; Melloh et al., 2013[16]; Melloh et al., 2015[17]; Melloh et al., 2015[18]		High							315	
Ferguson et al., 2000[19]; Ferguson et al., 2001[20]		High							32	
Grotle et al., 2005[21]; Grotle et al., 2007[22]		High							123	
Hallegraeff et al., 2020[23]; Hallegraeff et al., 2021[24]		Moderate							204	
Hasenbring et al., 2012[25]		Moderate							177	

Hendrick et al., 2013[26]		High							91	
Henschke et al., 2008[27]		Moderate							969	
Jenkins et al., 2022[28]; Jenkins et al., 2023[29]		Moderate							120	
Klyne et al., 2018[30]; Klyne et al., 2020[31]; Klyne et al., 2020[32]; Klyne et al., 2022[33]; Klyne et al., 2022[34]		High							133	
Knoop et al., 2022[35]		High							247	
Kovacs et al., 2005[36]		High							366	
Medeiros et al., 2018[37]		Moderate							200	
Mehling et al., 2011[38]; Mehling et al., 2012[39]; Mehling et al., 2015[40]; Mehling et al., 2015[41]		High							605	
Morf et al., 2021[42]		High							103	
Sharpe et al., 2014[43]		High							100	
Shaw et al., 2005[44]; Shaw et al., 2007[45]; Shaw et al., 2009[46]; Shaw et al., 2012[47]; Shaw et al., 2018[48]		High							568	
Shaw et al., 2011[49]		Moderate							97	
Sieben et al., 2005[50]		High							220	
Soares Oliveira et al., 2021[51]		Moderate							600	
Starkweather et al., 2016[52]		High							48	
Suri et al., 2011[53]		High							47	
Swinkels-Meewisse et al., 2006[54]		High							546	
Tan et al., 2018[55]		Low							177	
Thomas and France, 2008[56]		High							43	
Zille Queiroz et al., 2017[57]; Felicio et al., 2021[58]; Teixeira et al.,		Moderate							500	

		+4	-1		-1	0	0	0	+1		3

2021[59]; Silva et al., 2022[60]; Rocha et al., 2023[61]

Outcome: Pain (subacute cohorts)

8 cohorts		+4	-1		-1	0	0	0	+1		3
Ben Ami et al., 2020[62]	Observational longitudinal	High	Serious risk of bias	Some inconsistency present		No serious concern	No serious concern	Undetected		150	Moderate certainty
Epping-Jordan et al., 1998[63]; Shaw et al., 2007[64]; Wahlgren et al., 1997[65]; Williams et al., 1998[66]		Low								140	
Heneweer et al., 2007[67]		Low								80	
Karran et al., 2017 (a)[68]		Low								48	
Koleck et al., 2006[69]		Moderate								99	
Ranger et al., 2020 (a)[70]		High								203	
Schulz et al., 2016[71]		High								29	
Shojaei et al., 2020[72]		High								29	

Outcome: Pain (persistent cohorts)

3 cohorts		+4	-1		-1	0	-2	0	+1		1
Costa et al., 2009[73]	Observational longitudinal	Moderate	Moderate-high risk of bias	Some inconsistency present		No serious concern	Very serious concern	Undetected	Pattern identified	379	Very low certainty
Karran et al., 2017 (b)[68]		Low								132	
Ranger et al., 2020 (b)[70]		High								344	

Outcome: Disability (acute cohorts)

30 cohorts		+4	-1		-1	0	0	0	+1		3
Besen et al., 2015[2]; Carstens et al., 2014[3]; Shaw et al., 2013[4]; Shaw et al., 2011[5]	Observational longitudinal	High	Serious risk of bias	Some inconsistency present		No serious concern	No serious concern	Undetected	Pattern identified	496	Moderate certainty
Bousema et al., 2007[6]		Moderate								124	
Breen et al., 2011[7]		High								97	
Coste et al., 1994[8]		Moderate								103	
Coste et al., 2004[9]		Moderate								113	

Study		Risk of bias								n	
Elfering et al., 2014[10]; Melloh et al., 2011[11]; Melloh et al., 2012[12]; Melloh et al., 2013[13]; Melloh et al., 2013[14]; Melloh et al., 2013[15]; Melloh et al., 2013[16]; Melloh et al., 2015[17]; Melloh et al., 2015[18]		High								315	
Ferguson et al., 2000[19]; Ferguson et al., 2001[20]		High								32	
Grotle et al., 2005[21]; Grotle et al., 2007[22]		High								123	
Hallegraeff et al., 2020[23]; Hallegraeff et al., 2021[24]		Moderate								204	
Hasenbring et al., 2012[25]		Moderate								177	
Hendrick et al., 2013[26]		High								91	
Henschke et al., 2008[27]		Moderate								969	
Jenkins et al., 2022[28]; Jenkins et al., 2023[29]		Moderate								120	
Klyne et al., 2018[30]; Klyne et al., 2020[31]; Klyne et al., 2020[32]; Klyne et al., 2022[33]; Klyne et al., 2022[34]		High								133	
Kovacs et al., 2005[36]		High								366	
Medeiros et al., 2018[37]		Moderate								200	
Mehling et al., 2011[38]; Mehling et al., 2012[39]; Mehling et al., 2015[40]; Mehling et al., 2015[41]		High								605	
Morf et al., 2021[42]		High								103	
Reeser et al., 2001[74]		High								368	
Sharpe et al., 2014[43]		High								100	
Shaw et al., 2005[44]; Shaw et al., 2007[45];		High								568	

Study	Design	Risk of bias							N	Certainty
Shaw et al., 2009[46]; Shaw et al., 2012[47]; Shaw et al., 2018[48]										
Shaw et al., 2011[49]		Moderate							97	
Sieben et al., 2002[75]		High							34	
Sieben et al., 2005[50]		High							220	
Soares Oliveira et al., 2021[51]		Moderate							600	
Starkweather et al., 2016[52]		High							48	
Suri et al., 2011[53]		High							47	
Swinkels-Meewisse et al., 2006[54]		High							546	
Thomas and France, 2008[56]		High							43	
Zille Queiroz et al., 2017[57]; Felicio et al., 2021[58]; Teixeira et al., 2021[59]; Silva et al., 2022[60]; Rocha et al., 2023[61]		Moderate							500	
Outcome: Disability (subacute cohorts)										
8 cohorts	+4	-1	-1	0	0	0	+1		3	
Ben Ami et al., 2020[62]	Observational longitudinal	High	Serious risk of bias	Some inconsistency present	No serious concern	No serious concern	Undetected	Pattern identified	150	Moderate certainty
Epping-Jordan et al., 1998[63]; Shaw et al., 2007[64]; Wahlgren et al., 1997[65]; Williams et al., 1998[66]		Low							140	
Heneweer et al., 2007[67]		Low							80	
Karran et al., 2017 (a)[68]		Low							48	
Poiraudeau et al., 2006[76]		Moderate							443	
Ranger et al., 2020 (a)[70]		High							203	
Schulz et al., 2016[71]		High							29	
Shojaei et al., 2020[72]		High							29	

Outcome: Disability (persistent cohorts)										
4 cohorts	+4	-1	-1	0	-2	0	+1		1
Carey et al., 2000[77]	Observational longitudinal	High	Serious risk of bias	Some inconsistency present	No serious concern	Very serious concern	Undetected	Pattern identified	96	Very low certainty
Costa et al., 2009[73]		Moderate							379	
Karran et al., 2017 (b)[68]		Low							132	
Ranger et al., 2020 (b)[70]		High							344	

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